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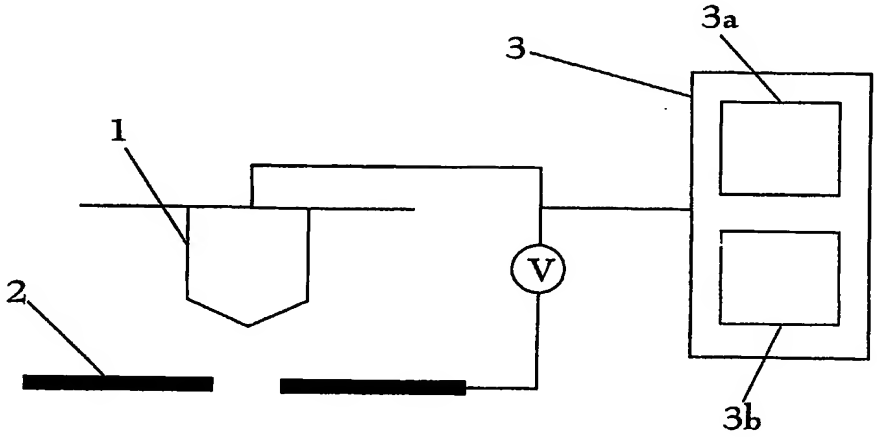
(54) Title: APPARATUS AND METHOD FOR CONTROLLING THE BEAM CURRENT OF A CHARGED PARTICLE BEAM



(57) Abstract: An apparatus for producing a beam of charged particles is provided, which comprises an emitter (1, 2) and a switching device (3) adapted to switch between first, second and third beam current levels, wherein the beam current at said first current level is suitable for writing a pixel of an image on the surface of a sample, the beam current at said second current level is suitable for not writing a pixel on the surface of said sample, and the beam current at said third current level is lower than the beam current at the second current level. Furthermore, a method of controlling the beam current of a charged particle beam is provided, comprising the steps of switching the beam current of said charged particle beam between first and second current levels, wherein the beam current at said first current level is suitable for writing a pixel of an image on the surface of a sample and the beam current at said second current level is suitable for not writing a pixel on the surface of said sample, and switching the beam current to a third voltage level, wherein the beam current at said third current level is lower than the beam current at the second current level.

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